

WHAT IS CLAIMED IS:

1. A reticle transfer system comprising:
 - a fork arm comprising a plurality of tines for supporting a reticle;
 - a linear carrier having a gripper for temporarily holding the reticle transferred by the fork arm; and
 - a sensor disposed on the fork arm and operable to detect the presence of a reticle at a given position relative to the fork arm.
2. A reticle transfer system as claimed in claim 1, and further comprising an alarm operatively connected to said position sensor so as to generate an alarm signal when the position sensor detects a reticle on the fork arm at said given position.
3. A reticle transfer system as claimed in claim 1, wherein the position sensor comprises a plurality of photo sensors disposed, respectively, at base ends of said tines opposite free ends of said tines.
4. A reticle transfer and storage system, comprising :
 - a reticle library;
 - a plurality of reticle cassettes supported in said reticle library;

a fork arm disposed adjacent said cassettes, said fork arm comprising a plurality of tines for supporting a reticle, and said fork arm being movable horizontally and vertically in a working range that encompasses the interior of each of said cassettes so as to be capable of withdrawing a reticle stored in any of said cassettes;

a linear carrier disposed outside of said library and movable to a position within the working range of said fork arm, said linear carrier having a gripper for temporarily holding a reticle withdrawn from a said cassette by the fork arm; and

a sensor disposed on the fork arm and operable to detect the presence of a reticle at a given position relative to the fork arm.

5. A reticle transfer and storage system as claimed in claim 4, and further comprising an alarm operatively connected to said position sensor so as to generate an alarm signal when the position sensor detects a reticle on the fork arm at said given position.

6. A reticle transfer system as claimed in claim 4, wherein the position sensor comprises a plurality of photo sensors disposed, respectively, at base ends of said tines opposite free ends of said tines.